PRELIMINARY SUBDIVISION DEVELOPMENT PLAN REVIEW CHECKLIST FOR SANITARY SEWER AND WATER

PROJECT NAME_____ JOB NO._____

Submitted By:_____ Contact Person:_____
Phone No:_____

Received By:__Water Dept._____ Date:_____

1st Submittal

Reviewed By:_____ Date:_____
Technician

Reviewed By:_____Date:_____
Supervisor

2nd Submittal

Reviewed By:_____Date:_____
Supervisor

Final Approval Sent to Eng. Dept: Date:_____

Note: Please return this list and redlined copy of plans when revised plans are submitted. (An "X" next to items indicates needed additions or corrections)

All plans shall include:

I. GENERAL

____ 1. Name of subdivision and current zoning status
____ 2. Owner's name and address
____ 3. Developer's name and address
____ 4. Name of former subdivision (if any)
____ 5. Acreage of property, number of lots and minimum lot size
____ 6. Seal and signature of registered Professional Engineer on each page
____ 7. Date of survey
____ 8. Date of plan drawing
____ 9. North arrow
____ 10. Plan size to be no grater than 24" x 36"
____ 11. Scale, no less than 1" = 100'
____ 12. Provide location map of S/D streets showing the C/L of all streets to 1:1000 scale
____ 13. Show location sketch and elevation of on-site benchmark
____ 14. Source of datum (benchmark used, USGS benchmark)
____ 15. Topographic map showing contour intervals at 2 feet

(I. con't)

____ 16. Boundaries heavily lined with bearing and distances shown
____ 17. Existing pavement width and right-of-way of all existing streets
____ 18. All existing county roads that stub to or are adjacent to the property being developed, must be shown. Use county tax map and official road map to confirm.
____ 19. Plan and profile of all streets, sanitary sewers and storm sewers on a scale of no less than 1" = 10' vertically. (Note: Profiles must based on levels run in the field.)
____ 20. Show County Std. Drawing. 1.02 street utility location.
____ 21. All roads, sanitary sewer, and water service stubbed to adjoining property
____ 22. Engineer to submit site boring reports indicating soil/rock conditions and locations of same.
Report received:_____
(date)

II. SANITARY SEWER

____ 1. Minimum angle between influent and effluent lines at manholes-90 degrees without a drop MH
____ 2. Maximum distance between manholes-400'
____ 3. No pipes and manholes to be located in drainage ditches or swales. Where this cannot be met, use a 30' easement with the centerline of the pipe 10' to the outer edge of the easement
____ 4. Sanitary sewer design data, including calculations (EPD requirement)
____ 5. No lines located outside of pavement within right-of-way
____ 6. Minimum grade for 8" lines-0.4%, larger line sizes must have sufficient grade to meet minimum 2.0 ft/sec. velocity flowing pipe full. **Design must conform to 10 State Standards.**
____ 7. Minimum cover in streets-6'
____ 8. Ductile iron pipe required in the following circumstances:
A. Where pipe in under less than 4' of cover
B. Where pipe is under 20' or more of fill
C. Where pipe crosses over storm sewer
D. Where pipe crosses within 1' of bottom of storm sewer
E. Where pipe enters MH with a drop of 12" or greater
____ 9. Outside drop MH required when drop exceeds 24" with 1joint of D.I.P into MH
____ 10. Concrete anchor collars required when grade exceeds 20%
____ 11. Received EPD approval-Date:_____
____ 12. Twenty (20') foot wide cleared access to lift station with 12' wide road surfaced with 3" compacted #4 stone.
____ 13. A six (6') chain link fence with 3 top strands of barbed wire, be provided around lift station with a 16' wide gate, with 9 guage fabric, schedule 40 corners and line posts, all hot dipped galvanized
____ 14. Required min. 1" water service to serve lift station w/standard curb stop and hose bib

III. WATER DISTRIBUTION SYSTEM

____ 1. All water lines on North and East side of street
____ 2. Water lines located 4' behind back of curb
____ 3. Fire hydrants to be placed no more than 1000' apart
____ 4. No lot further than 500' measured in the street, from a fire hydrant
____ 5. Fire hydrant placed on the end of all lines, 6" and larger
____ 6. No smaller than 6" lines in cul-de-sacs, with fire hydrant at end, no blow offs, no flush hydrants

____ 7. Original twenty-four hour flow chart submitted with pressure test required at a point nearest the tie- in to existing lines
____ 8. Design data and calculations submitted-Date:_____
____ 9. All water lines separated from parallel sanitary sewer lines by 18" vertically or 10' horizontally
____ 10. Ductile iron pipe required where water lines cross sanitary sewer lines
____ 11. All water services installed in the center of the lot

IV. NOTES TO BE SHOWN ON PLANS

____ 1. All easements must be grassed and/or rip-rapped as required to control erosion
____ 2. All silt barriers must be placed immediately following clearing. **No Construction** shall be started until silt barrier installation is complete
____ 3. All sanitary sewer and water construction shall conform to Columbia County Standards and Specifications
____ 4. Maximum infiltration allowable-50 GPD/inch diameter of pipe/mile
____ 5. Connection to the existing sanitary sewer line will be allowed, providing that the existing tie-in manhole is properly plugged and that the **next** proposed manhole is plugged. Failure to to do so, will result in the contractor assuming all responsibility and liability for any damage to the downstream lift station and pumps.
____ 6. All fire hydrants to have 5 1/4" valve openings
____ 7. Contractor to notify the Water Department Engineering office 48 hrs prior to making any taps to the existing water or sewer lines.
____ 8. Provide 0.1 foot drop across all sanitary sewer manholes
____ 9. Contractor shall conduct water system pressure test using a county owned water meter. Water meter can be secured from the Water Department Engineering office 24 hours prior to pressure test. Pressure test shall be in accordance with AWWA Section C600-current issue.
____ 10. Connection to the existing sanitary sewer manhole, for either the main line or for services, shall be made by coring, **no** hammering, jackhammering, or chipping will be allowed. An inspector shall be present at the time of tie in. It shall be the contractors responsibility to ensure that no debris from the connection are allowed downstream. A flexible rubber boot shall also be installed into the ex. manhole
____ 11. All sanitary sewer services shall be installed at a minimum grade of 1% unless approved otherwise by the Engineer.

(IV con't)

All pump station submittals must contain the following:

1. TDH calculations
2. NPSH calculations
3. Static head
4. Pump curves from manufacture
5. System curve
6. Head curve
7. Wet well volume
8. Cycle time
9. Pump station friction losses
10. Buoyancy calculations
11. Forcemain friction losses
12. Forcemain diameter and length
13. Forcemain material type
14. Profile and aerial view of the forcemain and pump station

ENGINEER'S COMMENTS:_____

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PLANS HAVE BEEN DISAPPROVED No.1_____
date

No.2_____
date